WHAT IS CLAIMED IS:

1. A stocker comprising:

a first sealing member;

atmosphere control means for controlling an internal atmosphere of said first sealing member to a first atmosphere; and

transfer means for transporting an object to be stocked to an exposure apparatus or receiving the object to be stocked from the exposure apparatus without exposing the objects to be stocked to an external atmosphere of said first sealing member,

wherein at least one object to be stocked is stocked in said first sealing member.

2. The stocker according to claim 1, wherein

the stocker further comprises a load-lock chamber, and

the object to be stocked is transported to outside of said first sealing member or received from the outside of said first sealing member via said load-lock chamber.

3. The stocker according to claim 1, further comprising atmosphere measurement means for measuring the internal atmosphere of said first sealing member.

4. The stocker according to claim 3, wherein said atmosphere measurement means includes an oxygen analyzer.

5. The stocker according to claim 1, wherein the first atmosphere has an oxygen concentration of not more

than 5 ppm at its steady state.

6. The stocker according to claim 1, wherein the first atmosphere includes an inert gas atmosphere.

7. The stocker according to claim 6, wherein the inert gas atmosphere includes a nitrogen gas atmosphere, a helium gas atmosphere, or a gas mixture atmosphere of nitrogen gas and helium gas.

8. The stocker according to claim 1, further comprising means for storing said at least one object to be stocked, in a second sealing member inside said first sealing member, and

the object to be stocked is transported to the outside of said first sealing member while stored in said second sealing member.

9. The stocker according to claim 1, wherein the stocker is connected to the exposure apparatus via a highly airtight transfer path.

10. The stocker according to claim 1, wherein said atmosphere control means has gas injection means.

11. The stocker according to claim 1, wherein said atmosphere control means has evacuation means.

12. The stocker according to claim 1, wherein the exposure apparatus uses an F_2 excimer laser as an exposure light source.

13. The stocker according to claim 1, further comprising transfer means, arranged in a semiconductor manufacturing line, for transporting the object to be

stocked to manufacturing apparatuses for various processes or receiving the object to be stocked from the manufacturing apparatuses for various processes.

14. The stocker according to claim 1, wherein the object to be stocked includes a reticle or mask.

15. The stocker according to claim 14, further comprising a reticle changer for supplying a desired reticle or mask to the exposure apparatus.

16. The stocker according to claim 1, wherein the object to be stocked includes a wafer.

17. An exposure apparatus comprising a stocker,

said stocker having:

a first sealing member;

atmosphere control means for controlling an internal atmosphere of said first sealing member to a first atmosphere; and

transfer means for transporting an object to be stocked to the exposure apparatus or receiving the object to be stocked from the exposure apparatus without exposing the object to be stocked to an external atmosphere of said first sealing member,

wherein at least one object to be stocked is stocked in said first sealing member.

18. A stocker comprising:

a first sealing member;

first atmosphere control means for controlling an internal atmosphere of said first sealing member to a

first atmosphere;

a second sealing member for storing at least one object to be stocked;

second atmosphere control means for controlling an internal atmosphere of said second sealing member to a second atmosphere; and

transfer means for transporting the object to be stocked to an exposure apparatus or receiving the object to be stocked from the exposure apparatus while the object to be stocked is stored in said second sealing member without being exposed to an external atmosphere of said first sealing member,

wherein at least one second sealing member which stores the at least one object to be stocked is stocked in said first sealing member.

19. The stocker according to claim 18, wherein

the stocker further comprises a load-lock chamber, and

the object to be stocked is transported to outside of said first sealing member or received from the outside of said first sealing member via said load-lock chamber while stored in said second sealing member.

20. The stocker according to claim 18, further comprising atmosphere measurement means for measuring the internal atmospheres of said first and second sealing members.

21. The stocker according to claim 20, wherein said

atmosphere measurement means includes an oxygen analyzer.

22. The stocker according to claim 18, wherein the first atmosphere has an oxygen concentration of not more than 50 ppm at its steady state, and the second atmosphere has an oxygen concentration of not more than 5 ppm at its steady state.

23. The stocker according to claim 18, wherein the first and second atmospheres include an inert gas atmosphere.

24. The stocker according to claim 23, wherein the inert gas atmosphere includes a nitrogen gas atmosphere, a helium gas atmosphere, or a gas mixture atmosphere of nitrogen gas and helium gas.

25. The stocker according to claim 18, wherein the stocker is connected to the exposure apparatus via a highly airtight transfer path.

26. The stocker according to claim 18, wherein said first and second atmosphere control means have gas injection means.

27. The stocker according to claim 18, wherein said first and second atmosphere control means have evacuation means.

28. The stocker according to claim 18, wherein the exposure apparatus uses an F_2 excimer laser as an exposure light source.

29. The stocker according to claim 18, further comprising transfer means, arranged in a semiconductor

manufacturing line, for transporting the object to be stocked to manufacturing apparatuses for various processes or receiving the object to be stocked from the manufacturing apparatuses for various processes.

30. The stocker according to claim 18, wherein the object to be stocked includes a reticle or mask.

31. The stocker according to claim 30, further comprising a reticle changer for supplying a desired reticle or mask to the exposure apparatus.

32. The stocker according to claim 18, wherein the object to be stocked includes a wafer.

33. An exposure apparatus comprising a stocker,

said stocker having:

a first sealing member;

first atmosphere control means for controlling an internal atmosphere of said first sealing member to a first atmosphere;

a second sealing member for storing at least one object to be stocked;

second atmosphere control means for controlling an internal atmosphere of said second sealing member to a second atmosphere; and

transfer means for transporting the object to be stocked to the exposure apparatus or receiving the object to be stocked from the exposure apparatus while the object to be stocked is stored in said second sealing member without being exposed to an external

atmosphere of said first sealing member,

wherein at least one second sealing member which stores said at least one object to be stocked is stocked in said first sealing member.

34. A semiconductor device manufacturing method comprising the steps of:

installing manufacturing apparatuses for various processes including an exposure apparatus in a semiconductor manufacturing factory; and

manufacturing a semiconductor device in a plurality of processes by using the manufacturing apparatuses,

wherein the exposure apparatus having a stocker,

the stocker having:

a first sealing member;

first atmosphere control means for controlling an internal atmosphere of the first sealing member to a first atmosphere;

a second sealing member for storing at least one object to be stocked;

second atmosphere control means for controlling an internal atmosphere of the second sealing member to a second atmosphere; and

transfer means for transporting the object to be stocked to the exposure apparatus or receiving the object to be stocked from the exposure apparatus while the object to be stocked is stored in the second sealing

member without being exposed to an external atmosphere of the first sealing member,

wherein at least one second sealing member which stores the at least one object to be stocked is stocked in the first sealing member.

35. The method according to claim 34, further comprising the steps of:

connecting the manufacturing apparatuses by a local area network; and

communicating information about at least one of the manufacturing apparatuses between the local area network and an external network of the semiconductor manufacturing factory.

36. The method according to claim 35, wherein, maintenance information of the manufacturing apparatus is acquired by data communication by accessing via the external network a database provided by a vendor or user of the exposure apparatus, or production is managed by data communication via the external network with a semiconductor manufacturing factory other than the semiconductor manufacturing factory.

37. A semiconductor manufacturing factory comprising:

manufacturing apparatuses for various processes including an exposure apparatus;

a local area network for connecting said manufacturing apparatuses; and

a gateway for allowing the local area network to

access an external network of said factory,

wherein information about at least one of said manufacturing apparatuses is communicated,

the exposure apparatus has a stocker,

the stocker has:

a first sealing member;

first atmosphere control means for controlling an internal atmosphere of said first sealing member to a first atmosphere;

a second sealing member for storing at least one object to be stocked;

second atmosphere control means for controlling an internal atmosphere of said second sealing member to a second atmosphere; and

transfer means for transporting the object to be stocked to the exposure apparatus or receiving the object to be stocked from the exposure apparatus while the object to be stocked is stored in said second sealing member without being exposed to an external atmosphere of said first sealing member, and

at least one second sealing member which stores the at least one object to be stocked is stocked in said first sealing member.

38. A maintenance method for an exposure apparatus installed in a semiconductor manufacturing factory, comprising the steps of:

causing a vendor or user of the exposure apparatus

to provide a maintenance database connected to an external network of the semiconductor manufacturing factory;

authenticating access from the semiconductor manufacturing factory to the maintenance database via the external network; and

transmitting maintenance information accumulated in the maintenance database to the semiconductor manufacturing factory via the external network,

wherein the exposure apparatus having a stocker,

the stocker having:

a first sealing member;

first atmosphere control means for controlling an internal atmosphere of said first sealing member to a first atmosphere;

a second sealing member for storing at least one object to be stocked;

second atmosphere control means for controlling an internal atmosphere of said second sealing member to a second atmosphere; and

transfer means for transporting the object to be stocked to the exposure apparatus or receiving the object to be stocked from the exposure apparatus while the object to be stocked is stored in said second sealing member without being exposed to an external atmosphere of said first sealing member,

wherein at least one second sealing member which

stores the at least one object to be stocked is stocked in said first sealing member.

39. The apparatus according to claim 33, wherein the apparatus further comprising:

a display;

a network interface; and

a computer for executing network access software, and

maintenance information of the exposure apparatus can be communicated via a computer network.

40. The apparatus according to claim 39, wherein the network access software is connected to an external network of a factory where the exposure apparatus is installed, provides on said display a user interface for accessing a maintenance database provided by a vendor or user of the exposure apparatus, and enables obtaining information from the database via the external network.